



P.B. 5818 - Patentlaan 2
2280 HV Rijswijk (ZI)
☎ (070) 340 2040
Tx 31651 epo nl
FAX (070) 340 3016

Europäisches
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Gille Hrabal Struck Neidlein Prop Roos
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Zeichen/Ref./Réf. T 61 706-mai	Anmeldung Nr./Application No./Demande n°//Patent Nr./Patent No./Brevet n° 01925978.7-2102/JPO103647
Anmelder/Applicant/Demandeur//Patentinhaber/Proprietor/Titulaire IDEMITSU PETROCHEMICAL CO., LTD.	

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COMMUNICATION

The European Patent Office herewith transmits the partial European search report under Rule 46(1) EPC relating to the above-mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following:

The search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within ONE MONTH after notification of this communication.

If the application has been filed up to 30 June 1999, the search fee in force before 01 July 1999 (EUR 869,--) or the equivalent applicable on the date of payment is payable.

This applies also to the search fees requested under Rule 46(1) EPC.

See also OJ EPO 06/1999, 405.

Moreover, the Search Division considers that the present European patent application does not comply with the provisions of the European Patent Convention to such an extent that it is not possible to carry out a meaningful search into the state of the art on the basis of some of the claims; reference is made to sheet C, which is attached to the search report.

- ☐ The abstract was modified by the Search Division and the definitive text is attached to the present communication.
- ☒ Additional set(s) of copies of the documents cited in the European search report is (are) attached as well.

Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement to OJ EPO 02/1999.

REGISTERED LETTER





Application Number

under Rule 46, paragraph 1 of the European Patent Convention EP 01 92 5978

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	EP 0 947 538 A (TEIJIN CHEMICALS LTD) 6 October 1999 (1999-10-06) * page 4, line 55 - page 5, line 9; claims 1-10 *	1-5, 11-20	C08L69/00 C08G64/04 C08J5/00 G11B7/24 C08K5/103 C08G64/40
Y	EP 0 615 996 A (GE PLASTICS JAPAN LTD) 21 September 1994 (1994-09-21) * claims 1-9 *	1-5, 11-20	
A	US 6 022 943 A (ISHIDA HIROMI ET AL) 8 February 2000 (2000-02-08)		
A	EP 0 592 900 A (DAICEL CHEM) 20 April 1994 (1994-04-20)		
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G11B C08K C08G
LACK OF UNITY OF INVENTION			
The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:			
see sheet B			
The present partial European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	5 June 2003	Decocker, L	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 01 92 5978

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

05-06-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0947538 A	06-10-1999	JP 11342510 A	14-12-1999
		EP 0947538 A2	06-10-1999
		US 6245405 B1	12-06-2001
EP 0615996 A	21-09-1994	JP 3103652 B2	30-10-2000
		JP 5239334 A	17-09-1993
		EP 0615996 A1	21-09-1994
		US 5364926 A	15-11-1994
		US 5502153 A	26-03-1996
US 6022943 A	08-02-2000	BR 0009598 A	02-01-2002
		CN 1345348 T	17-04-2002
		EP 1171505 A1	16-01-2002
		JP 2002541284 T	03-12-2002
		WO 0059984 A1	12-10-2000
		US 6262218 B1	17-07-2001
EP 0592900 A	20-04-1994	JP 3315477 B2	19-08-2002
		JP 6179744 A	28-06-1994
		JP 6345861 A	20-12-1994
		US 5434235 A	18-07-1995
		CN 1379051 A	13-11-2002
		CN 1088946 A ,B	06-07-1994
		EP 0592900 A2	20-04-1994
		EP 0872507 A2	21-10-1998
		EP 0861863 A2	02-09-1998
		KR 175154 B1	01-04-1999
		KR 152500 B1	15-10-1998
		KR 152646 B1	15-10-1998
		US 5466775 A	14-11-1995
		US 5488094 A	30-01-1996
		US 5670604 A	23-09-1997
		JP 7070307 A	14-03-1995



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-5, 11-20

Polycarbonate resin for optical disk substrate having a viscosity average molecular weight of from 10,000 to 17,000, an iron content of 0,2 ppm or less, a release agent content of 100 to 500 ppm. The polycarbonate has further 1. a free total phenol content of 80 ppm or less; or 2. when an intensity of a chemical shift delta of from 7.0 to 7.5 ppm based on a phenol ring in a spectrum measured with ¹H-NMR is 1,000, signal intensities at delta of from 1.02 to 1.08 and from 6.69 to 6.73 are 0.01 or less; or 3. a fraction of hydroxyl end groups of less than 7% by mole.

2. Claims: 6-10

Polycarbonate resin for an optical disk substrate being produced from 2,2-(4-hydroxyphenyl)propane having a content of 2-(2-hydroxyphenyl)-2-(4-hydroxyphenyl)propane of 1,000 ppm or less, a content of a cyclic dimer of p-isopropenylphenol represented by the formula (I) (claim 6) of 150 ppm or less and a content of a trisphenol compound represented by formula (II) (claim 6) of 150 ppm or less, having a viscosity average molecular weight of from 10,000 to 17,000 and a fraction of hydroxyl end groups of less than 7% by mole, and containing from 100 to 500 ppm of a releasing agent



Claim(s) searched completely:
1-5,16-20

Claim(s) searched incompletely:
11-15

Reason for the limitation of the search:

Present claims 11-15 relate to a polycarbonate resin defined by reference to the following parameter:

P1: signal intensities at delta of from 1.02 to 1.08 and from 6.69 to 6.73 when an intensity of a chemical shift delta of from 7.0 to 7.5 ppm based on a phenyl ring in a spectrum measured with ¹H-NMR

The use of this parameter in the present context is considered to lead to a lack of clarity within the meaning of Article 84 EPC. It is impossible to compare the parameter the applicant has chosen to employ with what is set out in the prior art. The lack of clarity is such as to render a meaningful complete search impossible. Consequently, the search has been restricted to: a polycarbonate resin comprising a viscosity average molecular weight from 10,000 to 17,000, an iron content of 0.2 ppm or less, a releasing agent content of from 100 to 500 ppm.